

ARGUMENTS/REMARKS

Response to rejections based on prior art

In the Office Action of March 10, 2004, the Examiner indicated the presence of allowable subject matter in claims 18-35, and applicant accordingly cancelled claims 1-17 and 36-43 in favor of their presentation for consideration in a continuation application. In response to a restriction requirement, claims 44-45 were withdrawn from prosecution.

Claims 18-35 thus remained for prosecution in this application.

Reversing the previous indication of allowable subject matter, the Examiner has now rejected claims 18-35 under 35 U.S.C. §103(a):

- Claims 18-22 are rejected as unpatentable over Yacenda et al. (U.S. Patent 5,822,418) in view of Borland et al. (U.S. Patent 6,246,765).
- Claims 23-24 are rejected as unpatentable over Yacenda in view of Borland and further in view of Simon et al. (U.S. Published Application 2001/0050976).
- Claims 25-35 are rejected as unpatentable over Yacenda in view of Simon.

Yacenda and Borland (together with Bennett et al, U.S. Patent 6,370,233, cited but not applied to any of claims 18-35) were cited previously by the Examiner in this application, and these three references together with Simon were cited by the Examiner in companion application Serial No. 09/801,418, filed 03/07/2001, that is referred to in the first paragraph of the specification (added by preliminary amendment dated June 1, 2001).

Claims 18 and 24 have been amended to more clearly present the subject of the claims, and claims 29-31 have been amended to correct typographical errors.

In general, claims 18-24 of the present application relate to methods for managing telephone service for a plurality of persons sharing a common telephone line based on determining whether a person sharing the common telephone line is at the location served by

the common telephone line, and for restricting completion of an outbound telephone call from the common telephone line to permit said telephone call to be completed only when a required person is present at the location served by the common telephone line. Claims 25-35 relate generally to a method for managing telephone service for a plurality of persons sharing a common telephone line based on determining whether a person sharing the common telephone line is at the location served by the common telephone line and for restricting completion of an inbound telephone call to the common telephone line to permit said telephone call to be completed only when a required person is present at the location served by the common telephone line.

In the method of independent claim 18 (restricting outbound calls), each of the persons sharing the common telephone line periodically transmits a unique signal from a transmitter adapted to accompany the person (e.g., as a wallet card or keychain fob), and the signal is received in a base station at the location served by the common telephone line, the base station containing a receiver, a processor, and for each person sharing the common telephone line, a database record unique to the person. The signal emitted by said transmitter has sufficient strength to be received by the base station receiver only when the transmitter is in close proximity to the receiver, and the received signal is processed and correlated to the unique database record. The method records receipt of the unique signal for the person in the base station database record, and also records a failure to receive the signal. Upon detecting a change in at least one of the records in the base station database (e.g., the person has entered or left the proximity of the base station), a wire line telephone call to the public switched network is initiated to a local telephone network controller, and the changed records in the base station database are uploaded to a network database maintained by the local telephone network controller, thereby to record whether each of the persons sharing the common telephone line is or is not at the location served by the common telephone line, and the updating call thereafter disconnects. The network database maintains records of subscriber telephone numbers that have restrictions on outbound telephone calls, and for each number that has restrictions on outbound telephone calls, a list of restricted telephone numbers. When an outbound telephone call is received from the subscriber number of the common telephone line, the method proceeds by checking the network database to determine whether the outbound telephone call is from one of the subscriber numbers that has restrictions

on outbound telephone calls, checking the list of restricted outbound telephone numbers to determine whether the number being called may be completed only if at least one required person is present at the location served by the common telephone line, and checking the updated network database to determine whether the required person is present at the location served by the common telephone line. The method permits the outbound telephone call to be completed only if the required person is present at the location served by the common telephone line.

In the method of independent claim 25 (restricting inbound calls), each of the persons sharing the common telephone line periodically transmits a unique signal from a transmitter adapted to accompany the person (e.g., as a wallet card or keychain fob), and the signal is received in a base station at the location served by the common telephone line, the base station containing a receiver, a processor, and for each person sharing the common telephone line, a database record unique to the person. The signal emitted by said transmitter has sufficient strength to be received by the base station receiver only when the transmitter is in close proximity to the receiver, and the received signal is processed and correlated to the unique database record. The method records receipt of the signal for the person in the base station database record, and also records a failure to receive the signal. Upon detecting a change in at least one of the records in the base station database (e.g., the person has entered or left the proximity of the base station), a wire line telephone call to the public switched network is initiated to a local telephone network controller, and the changed records in the base station database are uploaded to a network database maintained by the local telephone network controller, thereby to record whether each of the persons sharing the common telephone line is or is not at the location served by the common telephone line, and the updating call thereafter disconnects. The network database maintains records of subscriber telephone numbers that have restrictions on inbound telephone calls, and for each number that has restrictions on inbound telephone calls, a list of restricted telephone numbers. When an inbound telephone call is received to the subscriber number of the common telephone line, the method proceeds by checking the network database to determine whether the inbound telephone call is from one of the subscriber numbers that has restrictions on inbound telephone calls, checking the list of restricted inbound telephone numbers to determine whether the number being called may be completed only if at least one required person is

present at the location served by the common telephone line, and checking the updated network database to determine whether the required person is present at the location served by the common telephone line. The method permits the inbound telephone call to be completed only if the required person is present at the location served by the common telephone line.

Turning now to the specific grounds for rejection, reconsideration is respectfully requested of the rejection of claims 18-22 as unpatentable over Yacenda in view of Borland.

The method of claim 18 utilizes the following information recording and updating arrangement:

- A base station at the location of the common telephone line (e.g., at a residence) contains a receiver, a processor, and for each person sharing the common telephone line, a **base station database record** unique to the person and correlating the unique signal emitted by the person's transmitter to the unique database record.
- The base station has a **telephone connection to the public switched network**.
- A controller in the network contains a **network database of records**.
- The **receiver at the base station detects signals** from a person's transmitter when the person is in close proximity, i.e., at the location of the common telephone line.
- A **base station database record is entered** when the signal is received, and when the signal is failed to be received for a predetermined period of time.
- **When the base station database record changes, the base station initiates a telephone call to the network, updates the network database to record whether each of the persons sharing the common telephone line is or is not at the location served by the common telephone line, and thereafter disconnects.**

- **In the network database, records are maintained of which telephone numbers have restrictions on outbound calls, and for each such number a list of restricted outbound telephone numbers.**
- In accordance with the method, upon receipt of an outbound call from the common telephone line, **the network database records are checked to determine if the number from which the call is made has restrictions, checked to determine if the number called is one that is restricted, and checked to determine if the required person is present.** Only if the required person is present is the call permitted to be completed.

Yacenda discloses a PBX-based system typically for a single office in which each person is associated with a single telephone connected to the PBX and the persons wander around the office premises away from the location served by their telephone and into locations served by telephones also connected to the PBX associated with other persons. Yacenda deals with the problem of tracking down persons who are visiting locations served by other telephones connected to the PBX, and completing calls to them at the other telephone numbers which are not their telephone numbers. A number of call-completion features are based on the presence, absence or location of the persons as detected by the system.

In contrast, the invention of claim 18 deals with a situation more commonly encountered in the home environment, where many persons (e.g., in a family residence) share a common telephone line which is used to send and receive calls to and from a local office of the public switched telephone network. The central problem addressed by the present invention is how to simply and effectively provide individualized service to persons all sharing the same phone. A person's presence or absence controls the completion of restricted outbound calls.

In a record handling and updating method advantageously adapted to this different, usually residential, environment, a local base station keeps a local base station database record and provides a "yes or no" entry to signify the presence or absence of the person at the location served by the common telephone line. **When the base station database record**

changes, the base station initiates a telephone call to the network, updates the network database to record whether each of the persons sharing the common telephone line is or is not at the location served by the common telephone line, and thereafter disconnects.

In this manner, continuous presence/absence monitoring of individuals sharing the telephone line takes place at the base station and is stored in the base station database record, but updates to the network controller database only **occur when the base station database record changes**. The use of the telephone line, and the resource cost of a telephone call to the network, is incurred only when the base station database record changes, which may at times be infrequent. A telephone call is initiated, the network database is updated, and the telephone call then is disconnected.

In contrast, Yacenda's system discloses a very different information recording and updating arrangement tied to its PBX operating environment, and tied to PBX methods used to communicate between telephone-transceiver 14 and the PBX. Accordingly, Yacenda does not disclose or suggest the information handling arrangement of the present invention or its advantages in the context of residential use.

In the Yacenda patent, the transfer of badge information to the PBX is described in two places: in connection with telephone circuitry at col. 8, line 64 to col. 9, line 10 and in the section entitled "Communication Between the Telephone and the PBX" at col. 10, line 53 to col.12, line 19.

As described by Yacenda at col. 9, lines 1-10, the telephone 14 has a microcontroller 610 which

"formats the badge data including the IR energy level data into a microcontroller data frame (step 730). Microcontroller 610 then waits for an interrupt from the PBX and upon receipt thereof sends the badge data to the PBX. Alternatively, microcontroller 610 forwards the data frame to the PBX in a periodic basis (e.g., every 2 seconds) without any interrupt from the PBX. The data frame may be forwarded to the PBX, for example, via a robbed bit signaling technique, which will be described in more detail below (steps 740 and 750)."

The telephone and PBX are in continuous data communication, and the badge data are transferred either when the PBX requests a transfer (sends an interrupt) or periodically every 2 seconds. Updating to the PBX thus occurs whether the badge information or the microcontroller data frame undergoes a change or not, and communication channels are used for updating repetitively and unnecessarily.

Yacenda at col. 10, lines 54 to col. 12, line 19 provides data structure descriptions for badge data forwarding, with the following passages at col. 11, lines 12-24 noted: "The transfer of the badge data to the PBX is preferably via a secondary channel of the PBX, such as the data channel of an IDS 228 PBX, available from EXECUTONE Information Systems, Inc. . . . Alternatively, a robbed bit signaling technique may be used, utilizing the robbed bit technique, one bit within every forth transmission of the microcontroller data frame is utilized for the transmission of the badge data. Thus the effective data transmission rate of the badge data is approximately 2 kilobits, while the overall data transmission rate between the PBX and the telephone is 64 kilobits."

The Office Action dated December 2, 2004, at page 3, cites three passages in Yacenda that purportedly disclose the claimed limitations of initiating a telephone call to said local telephone network controller, uploading said base station database into the network database, and thereafter disconnecting said telephone call, thereby updating said network database to record whether said person is at the given location. The first passage, col. 17, lines 30-45 and 48-60, describes procedures for providing messages to individuals who are unavailable or whose telephones are busy. Nothing here describes how the PBX is updated with location data, but only how to proceed based on that updated data. The second passage, col. 14, lines 52-54, describes what to do if a searched party is located, and if located and the searching party desires no further communication, it says "the telephone connection is terminated by the PBX." Nothing here deals with updating the PBX with location data. The third passage, col. 16, lines 5-15, describes how to proceed if a selected group member cannot be found: "The connection between the calling party's telephone and the PBX is then disconnected (step 1824)." Nothing here describes how the PBX is updated with location data. Accordingly, none of the cited passages of Yacenda disclose applicant's invention.

In the Yacenda environment of continuous PBX communication there is a transmission resource penalty for updating information in the manner described by Yacenda. This penalty is avoided by applicant's invention with much greater economic impact in the environment for which applicant's invention is primarily designed. It is respectfully submitted that because of the different context and operation of Yacenda's system, Yacenda cannot be read to suggest either the structure or the advantages of the updating features of applicant's claimed invention.

Yacenda's system accordingly does not disclose the system of claim 18, or of claims 19-24 which are dependent on claim 18.

Borland requires the use of a keypad entry or a card reader contemporaneously with the making or receiving of an outbound or inbound call (column 16, lines 29-35), and has no database record that has been previously updated to maintain a current record of who is present at the location served by a telephone to control call completion. Borland fails to disclose any of the base station database, network controller database, database updating, or network controller control of outbound calls as described above. Applicant's invention has an updated database record achieved by updating the network controller database when there is a change in the base station database by initiating a telephone call to the local telephone network controller, to indicate whether a required person is present, and to automatically allow the call to be completed if the person is present. Borland doesn't disclose or suggest any basis for combining its disclosure with Yacenda, because the two systems have different contexts and approaches, and even if its disclosure were to be combined with Yacenda the resulting structure would still fail to have the method or advantages of applicant's invention of claims 18-24.

Reconsideration is respectfully requested of the rejection of claims 23-24 as unpatentable over Yacenda in view of Borland and further in view of Simon. Claims 23-24 are dependent on claim 18 and, as discussed above, Yacenda and Borland fail to disclose or suggest the above-noted features of claim 18. Simon similarly fails to disclose any of these features.

Simon discloses an "Integrated Security and Communications System With Secure Communications Link" which brings telephone features such as voice mail and Internet

features to security keypads, but fails to disclose any of the base station database, network controller database, database updating, or network controller control of outbound calls as described above. Applicant's invention has an updated database record achieved by updating the network controller database when there is a change in the base station database by initiating a telephone call to the local telephone network controller, to indicate whether a required person is present, and to automatically allow the outbound call to be completed if the person is present. Simon doesn't disclose or suggest any basis for combining its disclosure with Yacenda, because the two systems have different contexts and approaches, and even if its disclosure were to be combined with Yacenda the resulting structure would still fail to have the structure or advantages of applicant's invention of claims 23-24.

Reconsideration is respectfully requested of the rejection of claims 25-35 as unpatentable over Yacenda in view of Simon. Independent claim 25, as discussed above, describes a method for restricting the completion of inbound calls. Claim 25 contains the same limitations present in claim 18 with respect to data handling, i.e., base station recording of the presence or absence of a person at the location served by the common telephone line, and the same base station database to network database updating steps, including initiating a wire line telephone call to the network controller when there is a change in the base station database, updating the network database, and after updating terminating the wire line telephone call, thereby recording whether each of the persons sharing the common telephone line is or is not at the location served by the common telephone line. The network database maintains a record of inbound call restrictions, and permits restricted inbound calls to be completed only after checking to see if the required person is present at the location served by the common telephone line.

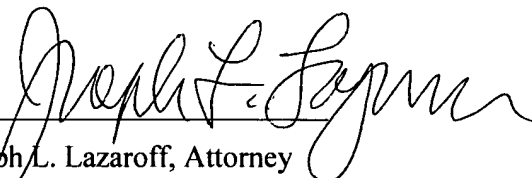
Accordingly, for the reasons discussed above with respect to claim 18, neither Yacenda nor Simon discloses or suggests the subject matter of claim 25 (or of claims 26-35 dependent on claim 25).

Bennett, cited but not applied in the rejection of claims, does not supply the disclosure missing in Yacenda, Borland or Simon. Bennett discloses a security system with call management functionality, with an on-premises controller for enabling, disabling or changing telephone service based on user presence and identity as determined by a security

controller receiving information via keypad, transponder or voice recognition. However, Bennett contains no disclosure of a base station database record, a network controller database, any arrangement whereby upon detecting a change in at least one of said records in said base station database, the base station initiates a telephone call to said local telephone network controller, uploads said base station database into the network database, and thereafter disconnects said telephone call, thereby updating said network database to record whether said person is at the given location, or any arrangement wherein the telephone network controller determines how to provide services to the persons sharing a common telephone line in accordance with updated network database records. Thus Bennett contains no suggestion to modify Yacenda or Borland or Simon to achieve the above-described features of the method of the present invention or its advantages.

For the foregoing reasons, it is respectfully submitted that claims 18-35 are now allowable, and reconsideration and allowance of the claims in this case are respectfully requested. If there are any outstanding issues, the Examiner is invited to contact applicant's attorney at 203-838-8037.

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